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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,470

09/10/2003

Kouta Fukui

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37398

7590

06/01/2007

TAIYO CORPORATION

401 HOLLAND LANE

#407

ALEXANDRIA, VA 22314

EXAMINER

CHEA, THORL

ART UNIT

PAPER NUMBER

1752

MAIL DATE

DELIVERY MODE

06/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,470	<b>Applicant(s)</b> FUKUI, KOUTA	
	<b>Examiner</b> Thorl Chea	<b>Art Unit</b> 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is responsive to the amendment on March 12, 2007; claims 5-8 pending in this instant application; claims 1-4, 9 have been canceled.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Asanuma et al (US Patent No. 6,146,822) and Biegler et al (US Patent No. 5,600,396).

Asanuma et al discloses the material of the claimed method such as shown in paragraph 4 above, but fails the thermal developing device comprising a filter to collection volatilized substance claimed in the present claimed invention. Asanuma disclose et al a photothermographic material comprising a substrate and composition provided thereon containing a compound of formula (I) and (II-b) having formula within the scope of the organic compounds of formula (I) and (II) presented in claims 6-8; the binder is in form of polymer latex and dispersed in aqueous solvent wherein the "aqueous" solvent is water or mixture of water and less than 70 % by weight of water miscible organic solvent; the silver halide grain, a non-photosensitive organic silver salt and reducing agent. See column 3, formula (I); column 4, formula (I-a), (II-a) and (II-b); columns 49-50; and column 51, lines 8-22. The photothermographic material is developed after

Art Unit: 1752

imagewise exposure at temperature from 80 to 250 °C at the time from 1 second to 180 second (col. 53, lines 1-5).

Biegler et al discloses a photothermographic processor equipped with filter housing containing a chemical filtration media used in cleansing the gas stream from the processor. See abstract and column 2, lines 31-48. The processor is also equipped with exposure/development apparatus and shown in column 4, lines 41-48. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use device taught in Biegler to trap the odor particle in the process for forming an image using a photothermographic material taught in Asanuma et al, and thereby provide an invention as claimed. The material taught in Asanuma et al and that used in the present claimed invention contain same organic compound, and the amount thereof would encompasses the amount of the organic compounds in the composition in an amount approximately  $0.005 \text{ g/m}^2$  or more has a volatilization remaining ratio of 50 % or more at 160 °C presented in claimed invention. See the photothermographic ingredients used in Asanuma et al such as reducible silver source, reducing agent, binder, phthalazine derivative and organic acid compound. The amount used therein would be higher than the amount of  $0.05 \text{ g/m}^2$ .

#### ***Response to Arguments***

4. Applicant's arguments filed March 12, 2007 have been fully considered but they are not persuasive. In their remark, the applicants argue that neither the Asanuma patent nor the Biegler patent teach or suggest an image forming method for a photothermographic material including the feature of thermal development in a range of 7 to 15 seconds. As shown in the attached declaration, unexpected results are achieved for this particular range of development time. In particular, odor is suppressed and the volatilization remaining ratios of the phthalazine derivative

Art Unit: 1752

and phthalic acid derivative are unexpectedly improved compared to the thermal development times outside this range.

The argument is not persuasive. Asanuma patent discloses the process for forming a an image using a photothermographic material by heating the material after imagewise exposure about 80 to 250 °C and developing time is about 1-180 seconds which overlaps the thermal development within the range of 7 and 15 seconds claimed in the present claimed invention in column 53, lines 1-5. The time and temperature of heating are relative, i.e., the higher the temperature the shorter heating time and vice versa. The argument with respect to the unexpected results fails to overcome the prima facie case of obviousness rejection set forth above. The Declaration is not commensurate with the scope of the claimed invention. The Declaration is related to the phthalazine derivative and phthalic acid derivative, while the organic compound encompasses any organic additives containing in phothermographic material. Moreover, the results shown in the Declaration would have expected by the worker of ordinary skill in the art . It would have expect that the longer the heating time the higher odor and trace of organic compound would produce.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 1752

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tch *TC*  
September 27, 2006



Thorl Chea  
Primary Examiner  
Art Unit 1752

Application/Control Number: 10/658,470

Page 6

Art Unit: 1752